KEYES&FOX LLP
DISTRIBUTED GENERATION LAW

5727 Keith Avenue
Oakland, CA 94618
(510) 219-6925

May 21, 2010

Via Electronic Mail

Ms. Susan M. Hudson, Clerk
Vermont Public Service Board
Chittenden Bank Building, Fourth Floor
112 State Street, Drawer 20
Montpelier, VT 05620-2701

RE: PSB Rule 5.500 – Interconnection Requirements – Draft Model Documents

Dear Ms. Hudson:

Pursuant to the May 14, 2010 email from Ms. Mary Jo Krolewski to the service list, the Interstate Renewable Energy Council (IREC) hereby submits for these comments on the Draft Model Agreements offered for comment by Central Vermont Public Service (CVPS) to the service list on May 17, 2010. In CVPS's email, a Draft Mutual Nondisclosure Agreement, Draft Feasibility Study Agreement, Draft System Impact Study Agreement, Draft Interconnection Facilities Study Agreement, Draft Generation Interconnection Agreement, and Draft Metering Agreement (collectively "Model Documents").

I. BACKGROUND

For over two decades, IREC has worked as a non-profit organization to accelerate the sustainable utilization of renewable energy resources. With funding from the United States Department of Energy, IREC's mission includes assisting state policymakers in identifying "best practices"[1] in the areas of interconnection, net metering and financing of distributed renewable energy technologies. To that end, IREC has participated in workshops, proceedings and rulemakings before over twenty-nine state public utility commissions during the past two years, including the development of interconnection rules in Colorado, Florida, Kansas, Illinois, New Mexico, New York, North Carolina, Utah, Virginia, Maine and to a lesser extent, Maryland,

[1] The federal Energy Policy Act of 2005 ("EPAct 2005"), Pub. L. No. 109-58, 119 Stat. 594, § 1254 required state utility commissions and certain utilities not subject to utility commission jurisdiction to consider adopting interconnection procedures that "promote current best practices of interconnection for distributed generation." IREC includes among "best practices" policies that have been implemented by state utility commissions and unregulated utilities that reduce barriers to interconnecting small generators while also maintaining worker safety and grid reliability.

South Dakota and the District of Columbia. IREC has also developed model interconnection procedures that reflect "best practices" in this area.[2]

As part of these efforts, IREC participated in a series of workshops and conference calls with the goal of updating Vermont's Rule 5.500 to best practices and developing model documents for use by stakeholders in Vermont within Rule 5.500. Representatives from CVPS, the Department of Public Service, the IREC and various other stakeholders have worked cooperatively to draft model agreements for use within the current framework of Board Rule 5.500. With the modifications discussed herein, IREC supports the use of these Model Documents in Vermont by utilities and Interconnection Customers. However, IREC reserves the right to request modification of these documents in the future based on updates to Rule 5.500, the ongoing evolution of best practices over the course of time, or in response to parties' comments in this docket.

II. DISCUSSION OF DRAFT RULE 5.500 MODEL DOCUMENTS

As a general matter, with adoption of the changes discussed herein, IREC believes the model documents offer a solid set of documents for use in Vermont. Providing model documents for use by stakeholders with the right to modify the documents with mutual agreement based on the individual circumstances of a particular project allows all stakeholders to leverage the collective efforts of the Board and stakeholders to develop documents that are generally fair to all parties involved. IREC appreciates all parties' efforts to develop these documents and offers the following comments to assist the Board in developing the best documents possible for use in Vermont.

III. DISCUSSION OF DRAFT MODEL FEASIBIILITY, SYSTEM IMPACT AND FACLITIES STUDIES AGREEMENTS

Section 5.0.1 of the Draft Feasibility Study Agreement and the Draft System Impact Study each provide that the Interconnection Request shall pay the cost of any new studies needed to analyze the impact of the proposed Project. Both sections also provide that the Interconnecting Utility will not bill the Interconnection Request for the cost of existing studies or models. IREC believes it is important to provide a very brief discussion in relation to these two concepts that Interconnection Requests should not be charged by a utility to gather up baseline information on it's system related to SADI/SAFI reliability information and existing studies on fault current and power flow information on the Interconnecting Utility's system. The production of this baseline information is already required for the general operation of an Interconnecting Utility's system and provides a baseline for comparison of the system prior to interconnection of the Project and related system impacts. Moreover, this baseline information is essential to showing the power quality provided by the Interconnecting Utility prior to the installation of the Project which can be helpful in addressing future disputes over power quality.

Consistent with Board Rule 5.507(H), Section 5.0.1 of the Draft Feasibility Study

[2] IREC developed its model procedures prior to the passage of EPAct 2005, and updated them in 2006, with the recognition that they could facilitate the adoption of "best practices" in net metering and interconnection procedures at state and local levels.

Agreement and the Draft System Impact Study, and Section 4.0 of the Draft Facilities Study Agreement all require the Interconnecting Utility to notify the Interconnection Requester of an increase in the cost of the study that is "material". IREC believes it is important to clarify what is meant by "material" change in the cost of the Studies. To provide some clarity here, IREC suggests that "materially" be defined in a footnote as 10% of the original estimated study cost.

IV. DISCUSSION OF THE DRAFT MODEL NONDISCLOSURE AGREEMENT, MODEL GENERATION INTERCONNECTION AGREEMENT AND DRAFT MODEL METERING AGREEMENT

After a careful review of the Draft Mutual Nondisclosure Agreement, IREC supports the use of this document in Vermont for situations where the Interconnecting Utility and Interconnection Requester might need access to information in the possession of either party that is asserted to be confidential. The terms of the agreement are general standard and mutual in their allocation of responsibilities between the parties.

After a careful review of the Draft Generation Interconnection Agreement (GIA), IREC generally supports the adoption of the GIA subject to the following modifications:

- Section 5.0 – IREC is deeply concerned about the inclusion of a term of years in the GIA. Generation resources are very expensive assets for the customers investing in these systems and the generation resource is often financed for a relatively long period of time. Accordingly, the introduction of a term of years on a critical document describing the rights of the customer-generator to interconnection their system introduces risk that could potentially make a generation resource impossible to finance or make financing of the generation resources more costly than necessary. In all the states, the author of these comments has operated in, the author has never seen a term of years within an interconnection agreement and is unaware of the absence of a term of years causing any significant problems for the Interconnecting Utility. IREC requests that entirety of proposed Section 5.0 be replaced with the following language: *"This Agreement shall remain in effect unless terminated earlier in accordance with Articles 5.1 and/or 5.2 of this Agreement."*
- Sections 6.0.1, 6.0.2, 6.0.4, 6.0.5 – IREC recommends removal of these clauses. They are unnecessary and duplicative of Section 4.0.4. Any required facilities needed for interconnection are identified in the Facilities Studies Report and the Agreement clearly requires their installation. Current Rule 5.507 also requires the Interconnection Request to bear the cost of any required System Upgrades. Moreover, the Facilities Study Report can be appended to the GIA as an Exhibit in order to make sure there is no confusion on what facilities are actually required as specified in Section 4.0.4. Additionally, for Section 6.0.4 - For any Generation Resource complying with IEEE 1547, are not allowed to reconnect to the Interconnecting Utility's system until the Generating Resource is in phase.
- Section 6.0.3 – Reference to a "3 phase load break air break" should be changed to a "load break air break" (drop the reference to 3 phase) as smaller systems might connect at single phase and these systems should not be required to install a

3 phase break.

- Section 7.0.2 – The reference to 0.98 leading and lagging should be changed to 0.95 leading and lagging as 0.95 is the commonly accepted value.
- Section 8.0.1 – Inverter-based systems should be exempt from being required to provide copies of all relay settings to the Interconnecting Utility. The relay settings for inverters are specified in IEEE 1547 and UL 1741 tests for conformity to this standard. Accordingly, all UL 1741 compliant inverters have the same relay settings and, accordingly, providing these relay settings, which never change, is merely a waste of resources. This change can be accomplished by adding "For non-inverter-based systems," to the sentence reading: "The NUG shall furnish a copy of all relay settings to the Interconnecting Utility." Accordingly, the updated clause would read: "*For non-inverter-based systems, the NUG shall furnish a copy of all relay settings to the Interconnecting Utility.*"
- Section 8.0.2 – IREC is concerned that latter part of this section regarding maintenance and testing of Interconnecting Utility protective devices could result in a NUG paying for unnecessary or imprudent testing. According, IREC requests that the latter part of this section be modified to read: If required by *Prudent Engineering and Operating Practice*, the NUG shall be responsible for the cost for Interconnecting Utility to perform maintenance and testing on the Interconnecting Utility owned protective devices necessary for interconnection of the NUG generation facility to the Interconnecting Utility's electric system and for periodic testing of the metering equipment as defined in the Metering Agreement. (additional language in italics).
- Section 9.1.5 – IREC recommends that a "material" modification be defined to avoid disputes. Accordingly, IREC proposes the following clarification of material which can be added to the end of the clause: For the purposes of this section, material is defined as a change to the Generating Facility that would cause it to fail one or more interconnection screens. Defining material changes in this fashion will maintain the safety and reliability of an interconnected generation resource while also allowing relatively minor changes to be undertaken by a customer-generator without fear of losing their right to interconnect.
- Generally – Ultimately, any reference to Interconnection Point should be changed to Point of Common Coupling which is the more commonly accepted reference to the Interconnection Point.

V. CONCLUSION

IREC appreciates the opportunity to submit these comments in response to the Draft Documents submitted by CVPS on May 17, 2010. IREC appreciates all of the efforts of stakeholders to date to develop these model documents and also efforts to date to update Rule 5.500 in a cooperative fashion.

Respectfully,

/s/ Joseph F. Wiedman

For the Interstate Renewable Energy Council

Keyes & Fox, LLP
5727 Keith Avenue
Oakland, CA 94618
(510) 597-1798
E-mail: jwiedman@keyesandfox.com

cc: Electronic Service List